

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE WIDENING AND REALIGNMENT OF POWDER MILL ROAD AND THE CONSTRUCTION OF A NEW INTERSECTION AT MONTGOMERY RD AND 34TH PL.

ALL UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THEY MAY BE MODIFIED PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY.

INTERSECTION OPERATION

THE INTERSECTION IS TO OPERATE IN A NEMA FOUR PHASE FULLY TRAFFIC ACTUATED MODE. THERE WILL BE AN EXCLUSIVE/PERMITTED LEFT TURN PHASE FOR NORTHBOUND POWDER MILL ROAD.

CONTROLLER REQUIREMENTS

INSTALL AN EIGHT PHASE, FULLY TRAFFIC ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH A TWO CAMERA VIDEO RACK, ONE FOUR CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIER INTERSECTION MONITOR AND TELEMETRY MODULE WITH ALL THE NECESSARY HARNESSSES AND EQUIPMENT TO BE HOUSED IN A NEMA SIZE 6 BASE MOUNTED CABINET.

SPECIAL NOTES

MATERIALS TO BE FURNISHED BY THE CONTRACTOR SHALL REQUIRE CATALOG CUTS TO BE SUBMITTED FOR SHA APPROVAL PRIOR TO PURCHASING.

PROJECT CONTACTS

THE CONTACTS FOR THIS PROJECT ARE AS FOLLOWS:

DISTRICT 3

MR. MAJID SHAKIB
ASST. DIST. ENGR., TRAFFIC
301 513-7358

MR. WAYNE MOWDY
ASST. DIST. ENGR., MAINTENANCE
301 513-7304

MR. AUGIE REBISH
UTILITIES ENGR.
301 513-7350

MR. JOHN WARNICK
ASST. DIST. ENGR., CONSTRUCTION
301 513-7336

THE OFFICE OF TRAFFIC

MR. RICHARD DAFF
CHIEF, TRAFFIC OPERATIONS DIVISION
410 787-7630

MR. BOB SNYDER
ASST. DIV. CHIEF, TRAFFIC OPERATIONS
410 787-7631

MR. ED RODENHIZER
TEAM LEADER, SIGNAL OPERATIONS
410 787-7652

MR. EUGENE BAILEY
TEAM LEADER, SIGN OPERATIONS
410 787-7676

MS. DARLENE EIDE
SUPPLY OFFICER, SIGNAL WAREHOUSE
410 787-7668

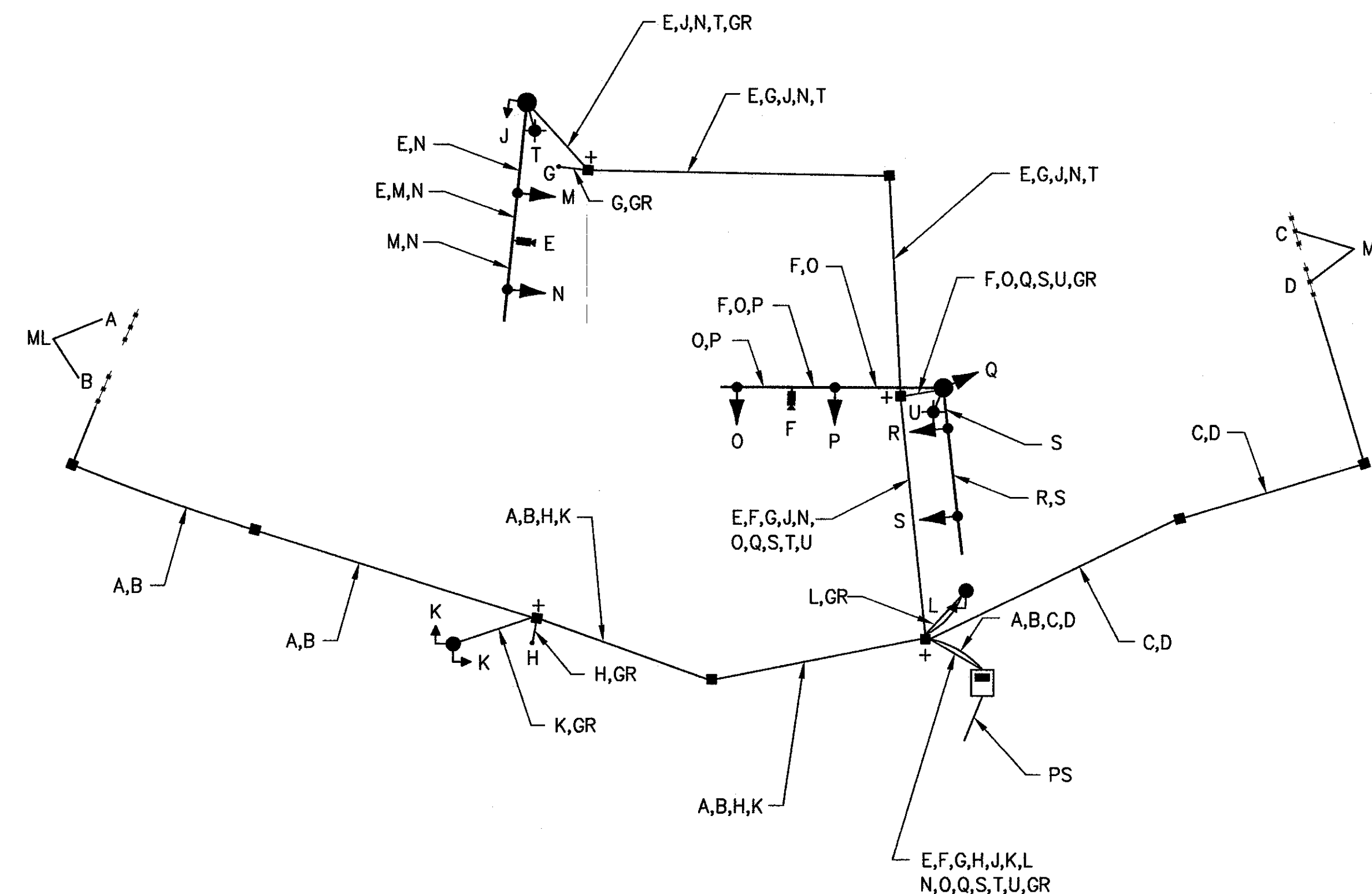
EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

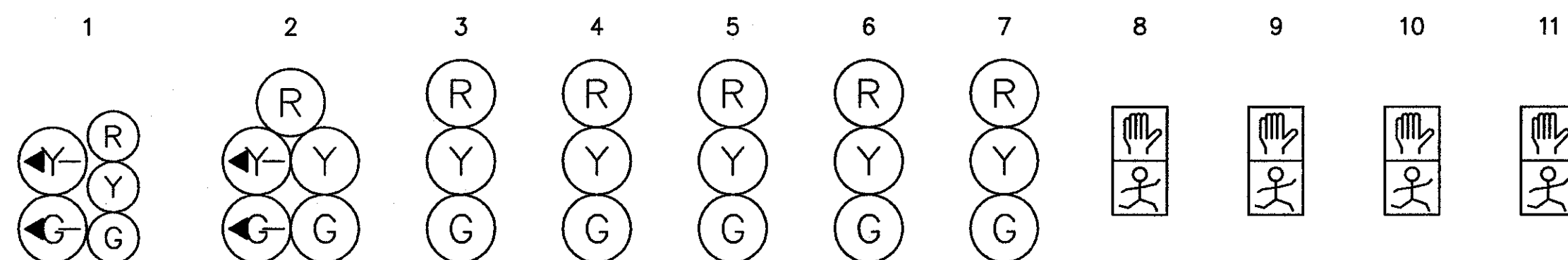
ITEM	QUANTITY	DESCRIPTION
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B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM	QUANTITY	DESCRIPTION
203030	3 CY	TEST PIT EXCAVATION
585412	385 LF	12" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585424	115 LF	24" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
801004	10 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	100 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805118	210 LF	4" SCHED. 80 RIGID PVC CONDUIT - BORED
805125	50 LF	2" SCHED. 80 RIGID PVC CONDUIT - TRENCHED
805135	600 LF	3" SCHED. 80 RIGID PVC CONDUIT - TRENCHED
805140	100 LF	4" SCHED. 80 RIGID PVC CONDUIT - TRENCHED
807400	1 EA.	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMP
810010	100 LF	ELECTRICAL CABLE - 1 CONDUCTOR, NO. 4 AWG THHN/THWN
810019	440 LF	ELECTRICAL CABLE - 2 CONDUCTOR, NO. 12 AWG COPPER - TYPE T/C
810601	4 EA.	NON-INVASIVE PROBE, 500' LEAD-IN CABLE
811001	12 EA.	ELECTRICAL HANDHOLE
813015	100 SF	FURNISH & INSTALL OVERHEAD SIGN - 1 EACH R10-12 (36" x 42") - MAST ARM MOUNT - 1 EACH D3-2 (VAR. x 16") - MAST ARM MOUNT - 4 EACH D3-2 (VAR. x 16") - DUAL FACED MAST ARM MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY (45" x 75") - 1 EACH ASSOCIATED SHIELD ASSEMBLY (30" x 51")
816001	2 EA.	VIDEO DETECTION CAMERA
816005	2 EA.	CONTROL CABLE, 250 FOOT VIDEO DETECTION CAMERA TO CONTROLLER
818004	2 EA.	10' BREAKAWAY PEDESTAL POLE
818021	1 EA.	STEEL POLE WITH TWIN 50 FOOT MAST ARM
818036	1 EA.	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
831010	2 EA.	250W HPS LAMP AND LUMINAIRE WITH PHOTOCELL
837001	4 EA.	GROUND ROD - 3/4" DIA. x 10' LENGTH
860270	3 EA.	8" VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860272	22 EA.	12" VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860278	6 EA.	12" PEDESTRIAN SIGNAL HEAD SECTION, POLE MOUNT
860282	2 EA.	12" PEDESTRIAN SIGNAL HEAD SECTION, PED POLE MOUNT
861104	420 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861105	275 LF	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
861107	215 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	720 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
865001	2 EA.	PUSHBUTTON AND SIGN
866103	2 EA.	15' LIGHTING ARM ON SIGNAL STRUCTURE
871202	1 EA.	FURNISH & INSTALL STANDARD SHA TRAFFIC SIGNAL BASE MOUNTED CABINET WITH TELEMETRY INTERCONNECT AND 6 FOUR-CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIERS. [NOTE: CABINET SHALL BE PURCHASED FROM ECONOLITE AND DELIVERED TO THE SHA SIGNAL SHOP FOR WIRING AND TESTING. CONTACT MR. ED RODENHIZER AT 410 787-7650.]
800000	2 EA.	4' BREAKAWAY PEDESTAL POLE
800000	120 LF	3" SEAMLESS HDPE CONDUIT - BORED



PHASE DIAGRAM



PHASE 2&5	<G-G	<G-G	G	R	R	R	R	DW	DW	DW	DW	
5 CHANGE	<Y-G	<Y-G	G	R	R	R	R	DW	DW	DW	DW	
PHASE 2&6	G	G	G	G	G	R	R	DW	DW	W	W	
2&6 CHANGE	Y	Y	Y	Y	Y	R	R	DW	DW	FL/DW	FL/DW	
PHASE 4	R	R	R	R	R	G	G	W	W	DW	DW	
4 CHANGE	R	R	R	R	R	Y	Y	FL/DW	FL/DW	FL/DW	FL/DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK	

WIRING DIAGRAM

A,B,C,D	NON-INVASIVE PROBE LEAD-IN	N,O,Q,S	7-CONDUCTOR CABLE (NO. 14 AWG)
E,F	CONTROL CABLE, VIDEO DETECTION CAMERA TO CONTROLLER	T,U	2-CONDUCTOR CABLE (NO. 12 AWG) TRAY CABLE FOR LUMINAIRE
G,H	2-CONDUCTOR CABLE (NO. 14 AWG)	PS	PROPOSED UNDERGROUND ELECTRICAL SERVICE BY PEPCO
I	NOT USED	ML	NON-INVASIVE PROBE
J,L	3-CONDUCTOR CABLE (NO. 14 AWG)	GR	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
K,M,P,R	5-CONDUCTOR CABLE (NO. 14 AWG)	+	GROUND ROD



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
AMMENDALE / VIRGINIA MANOR ROAD
Section II - Phase 3
TRAFFIC SIGNAL PLAN
MD 212 (Powder Mill Rd) @ Montgomery Rd and 34th Place

DRAWN BY: MDS	F.A.P. NO. NA	TS NO. 16253	SHEET NO.
CHECKED BY: EBY	S.H.A. NO. -	T.I.M.S. NO. G163	68D OF
SCALE: NONE	COUNTY: Prince George's	LOG MILE: 162-1208.27	
DATE: MAY 2004			